

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/668,927	MOORE, IAN	
	<b>Examiner</b>	<b>Art Unit</b>	
	Lisa C. Sievers	2863	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to communications filed on 11/17/2006.
2. ☒ The allowed claim(s) is/are 1-23.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |  |
|---|--|
| <ol style="list-style-type: none"> <li>1. <input type="checkbox"/> Notice of References Cited (PTO-892)</li> <li>2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) —</li> <li>3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br/>Paper No./Mail Date _____</li> <li>4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br/>of Biological Material</li> </ol> | <ol style="list-style-type: none"> <li>5. <input type="checkbox"/> Notice of Informal Patent Application</li> <li>6. <input type="checkbox"/> Interview Summary (PTO-413),<br/>Paper No./Mail Date _____</li> <li>7. <input type="checkbox"/> Examiner's Amendment/Comment</li> <li>8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance</li> <li>9. <input type="checkbox"/> Other _____</li> </ol> |
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## **DETAILED ACTION**

### **Allowable Subject Matter**

1. Claims 1 – 23 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

The primary reason for the allowance of claims 1 (amended) and 2 - 11 is the inclusion of the limitations, "selecting an input subsurface line within an aperture of the target subsurface line; selecting one or more points on a line twice the distance from the target subsurface line to the input subsurface line, wherein each point corresponds to a potential downward reflection point of the surface multiples for a trace in the record."

The primary reason for the allowance of claims 12 (amended), 13 (amended), and 14 - 16 is the inclusion of the limitations, "selecting an input subsurface line within an aperture of the target subsurface line; applying a differential moveout correction to the input subsurface line; performing a two dimensional surface multiple prediction on the input subsurface line to generate a sum of a plurality of potential surface multiples on an inline in one or more multiple contribution gathers that correspond to the target subsurface line, wherein the inline corresponds to the input subsurface line."

The primary reason for the allowance of claims 17 (amended) and 18 - 22 is the inclusion of the limitations, "selecting an input subsurface line within an aperture of the target subsurface line; selecting one or more points on a line twice the distance from the target subsurface line to the input subsurface line, wherein each point corresponds to a potential downward reflection point of the surface multiples for a trace in a record of seismic data."

The primary reason for the allowance of claim 23 (amended) is the inclusion of the limitations, "selecting an input subsurface line within an aperture of the target subsurface line; applying a differential moveout correction to the input subsurface line; performing a two dimensional surface multiple prediction on the input subsurface line to

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generate a sum of a plurality of potential surface multiples on an inline in one or more multiple contribution gathers that correspond to the target subsurface line, wherein the inline corresponds to the input subsurface line."

It is these limitations expressed in the claimed combination but not found, taught or suggested in the prior art of record, or for which the prior art does not suggest a motivation such that it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine said limitations with remaining claimed features, that makes these claims allowable over the prior art.

### Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lisa C. Sievers whose telephone number is (571) 272-8052. The examiner can normally be reached on M-F, 8:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on (571) 272-2269. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free)..

LCS

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